Nova Scotia Environment
Annual Accountability Report
for the Fiscal Year 2013-2014

NOVA SCOTIA

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Accountability Statement

The Accountability Report of Nova Scotia Environment for the year ended March 31, 2014 is prepared pursuant to the *Finance Act* and government policies and guidelines. These authorities require the reporting of outcomes against Nova Scotia Environment's Statement of Mandate for the fiscal year just ended. The reporting of the Department's outcomes necessarily includes estimates, judgments and opinions by Nova Scotia Environment management.

We acknowledge that this Accountability Report is the responsibility of Department management. The report is, to the extent possible, a complete and accurate representation of outcomes relative to the goals and priorities set out in the Nova Scotia Environment's 2013-2014 Statement of Mandate.

Honourable Randy Delorey
Minister of Environment

Elizabeth Cody
Deputy Minister of Environment

Message from Minister

I am pleased to provide you with our Accountability Report for the fiscal year 2013-2014, which measures Nova Scotia Environment's success in meeting the goals set out in the department's 2013-2014 Statement of Mandate. The objectives and measures taken to meet them are outlined in the pages that follow.

A key departmental accomplishment in 2013-2014 was the implementation of new contaminated sites regulations in July to streamline and clarify the process for property owners to address contamination.

In August, the final Parks and Protected Areas Plan was introduced, identifying key lands to be legally protected in order to meet the province's legislated land protection goals by 2015.

In October, I was both pleased and humbled to be appointed Minister for the department. Since my appointment, the new government passed legislation to ban companies from importing and transporting wastewater from hydraulic fracturing.

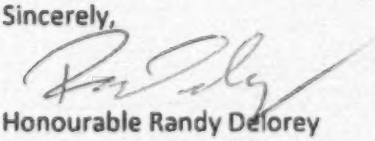
In January, I began public meetings in Kennetcook and Truro to discuss the wastewater stored in those communities from hydraulic fracturing in Nova Scotia in 2008-2009. A pilot project in Debert treated the water twice to remove naturally occurring radioactive materials (NORMs) and chemicals. Tests demonstrated that the treated water meets federal guidelines. We will continue to keep the community informed as we move forward on this issue.

Government has also committed to addressing air emissions at Northern Pulp and the long-standing pollution of Boat Harbour from decades of industrial activity. I have had initial discussions with the Pictou Landing First Nation and in the new fiscal year, we will be looking at ways to address this important issue.

Work was also carried out over the last year to launch a public consultation on proposed changes to our solid waste regulations. These changes will further reduce the materials entering landfills, help offset municipalities' solid waste costs, and benefit charities that collect textiles for re-use and recycling. I'm looking forward to hearing Nova Scotians' ideas on improving our solid waste system.

I am proud to work with such dedicated staff in communities throughout the province and I thank every member of the Nova Scotia Environment team for their hard work. I encourage Nova Scotians to discuss their concerns and ideas on protecting our environment. My email address is minister.environment@gov.ns.ca.

Sincerely,



Honourable Randy Delorey
Minister of Environment

1. Financial Results

Nova Scotia Environment			
Program and Service Area	**2013/14 Estimate ($ thousands)**	**2013/14 Actual ($ thousands)**	**Variance ($ thousands)**
Ordinary Revenues, Fees and Recoveries	$4,814	$5,155	341
TCA Purchase Requirements	$3,270	$3,194	(76)
Administration	$787	$940	153
Policy	$4,774	$4,766	(8)
Compliance	$11,079	$11,032	(47)
Science	$3,542	$2,987	(555)
Sustainability & Innovation	$4,772	$4,860	88
Total Gross Program Expenses	$24,954	$24,585	(369)
Funded Staff (FTEs)	256	227	(29)

2. Performance Measures

The status of Nova Scotia Environment's (NSE) performance measures contained in the 2013-2014 Statement of Mandate, demonstrates the progress we made in achieving our mandate of protecting the environment. These updates are summarized below and on the subsequent pages of this report.

Mandate: *Environment Act*

Outcome Description:

Clean Air - Nova Scotia Power Inc.'s (NSPI) annual air emissions of sulphur dioxide (SO_2) are below their regulated emissions cap.

Measure:

Annual total SO_2 air emissions (tonnes) by NSPI.

Target:

The target is for NSPI to achieve a 50% reduction in SO_2 emissions from their 1995 cap of 145,000 tonnes by 2010 (which is 72,500 tonnes), to no greater than 60,900 tonnes by 2015, and to no greater than 36,250 tonnes by 2020 (a full 75% less than their 1995 cap of 145,000 tonnes). These caps are outlined in the table below:

Year	Cap (tonnes)
2010	72,500
2015	≤ 60,900
2020	≤ 36,250

Why this Measure and Target(s)?

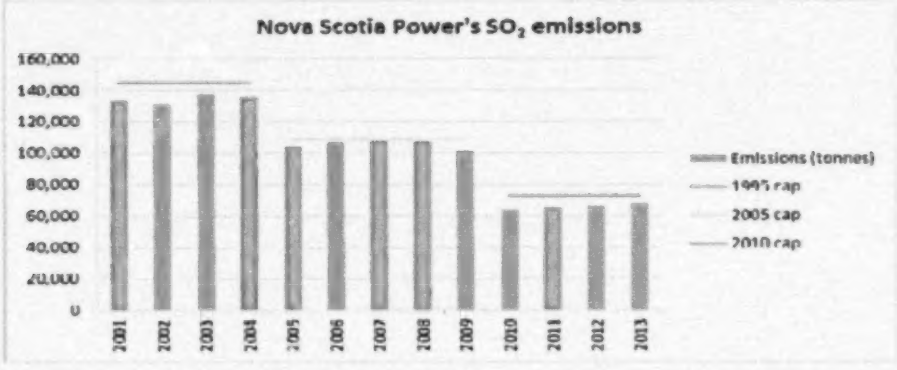
SO_2 contributes to the formation of smog and acid precipitation, which have negative effects on human health and the environment. In Nova Scotia, most of the SO_2 emissions are produced by thermal electric power generation. The purpose of this measure and targets is to limit NSPI's (the largest emitter in the province) SO_2 emissions to reduce smog and acid precipitation.

Strategic Actions to Achieve the Target:

- Regulations were created by NSE to set emissions caps for NSPI and require them to report annually to the Department to demonstrate progress in meeting these caps.

2013-2014 Results:

In 2013, NSPI emitted 67,806 tonnes of SO_2 into the atmosphere, which was less than the emissions cap of 72,500 tonnes.



Ultimate Goal:

Our ultimate goal is to have clean air. Our goal for this measure is to have NSPI continue to meet the caps in the Air Quality Regulations, resulting in cleaner air. In addition to the 2010 target, SO_2 emissions caps have been set in the Regulations for NSPI for 2015 (60,900 tonnes) and 2020 (36,250 tonnes).

Mandate: *Environment Act*

Outcome Description:

Clean Air - Nova Scotia Power Inc.'s (NSPI) annual air emissions of nitrogen oxides (NO_x) are below their regulated emissions cap.

Measure:

Annual total NO_x (tonnes) emitted into the atmosphere by NSPI.

Target:

The target is for NSPI to meet their annual NO_x emissions cap, set in 2009, of 21,365 tonnes, or 20% less than the base year 2000, and to achieve a level of NO_x emissions no greater than 19,288 tonnes by 2015, and no greater than 14,955 tonnes by 2020 (44% less than base year emissions of 26,706 tonnes). These caps are outlined in the table below.

Year	Cap (tonnes)
2009	21,365
2015	≤ 19,288
2020	≤ 14,955

Why this Measure and Target(s)?

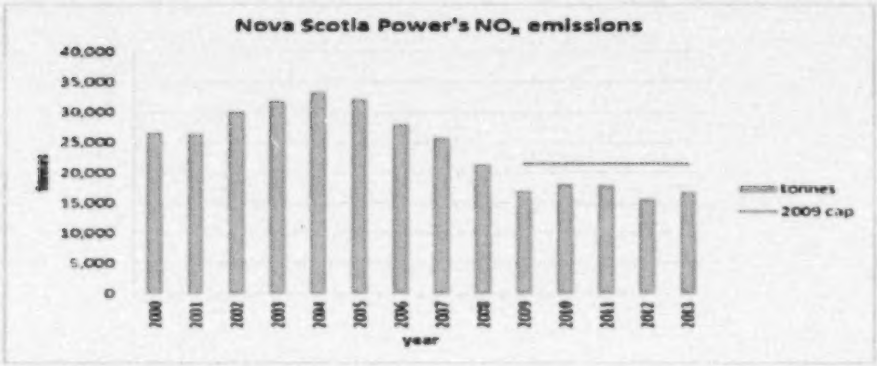
NO_x contributes to the formation of smog and acid precipitation, which have negative effects on human health and the environment. In Nova Scotia, NO_x emissions are produced by a variety of sources, including thermal electric power generation. The purpose of this measure and targets is to limit NSPI's NO_x emissions to reduce smog and acid precipitation. NSPI is a significant emitter of NO_x in the province.

Strategic Actions to Achieve the Target:

- Regulations were created by NSE to set emissions caps for NSPI and require them to report annually to the Department to demonstrate progress in meeting these caps.

2013-2014 Results:

In 2013, NSPI emitted 16,998 tonnes of NO_x into the atmosphere, which was 36% less than their 2000 emissions levels and below the emissions cap of 21,365 tonnes.



Ultimate Goal:

Our ultimate goal is clean air. Our goal for this measure is to have NSPI continue to meet the targets in the Air Quality Regulations, resulting in cleaner air. In addition to the 2009 target, NO_x emission caps have been set in the Regulations for NSPI for 2015 (19,228 tonnes) and 2020 (14,995 tonnes).

Mandate: *Environment Act*

Outcome Description:

Clean Air - Nova Scotia Power Inc.'s (NSPI) annual air emissions of mercury are below their regulated emissions cap.

Measure:

Annual total mercury air emissions (kg) from NSPI's coal-fired electric power generating stations.

Target:

The target is for NSPI to limit mercury emissions to be within the emissions caps for their coal-fired electrical power stations. The first cap on NSPI's mercury emissions was set in 2005 at 168 kg. There are declining emissions caps until 2020. The cap in 2013 was 85 kg, in 2014, it is 65 kg and a final cap of 35 kg has been set for 2020, which is 80% less than their original cap set in 2005. These caps are outlined in the table below:

Year	Cap (kg)
2005	168
2010	110
2011-2012	100
2013	85
2014	65
2020	35

Why this Measure and Target(s)?

Mercury is a neurotoxin that persists in the environment and accumulates in the food chain. It can have negative effects on human health. Coal-fired electric power generation plants account for the vast majority of mercury emissions in Nova Scotia. The purpose of this measure and targets is to reduce the negative impacts of mercury on the environment and human health. NSPI is the largest mercury emitter in the province.

Strategic Actions to Achieve the Target:

- Regulations were created by NSE to set emissions caps for NSPI and require them to report annually to the Department to demonstrate progress in meeting these caps.

2013-2014 Results:

In 2013, NSPI's mercury emissions were 72.52 kg, which is below the emissions cap of 85 kg for 2013.

Ultimate Goal:

Our ultimate goal is clean air. Our goal for this measure is for NSPI to continue to meet the mercury emissions caps set out in the Air Quality Regulations, resulting in cleaner air. The first cap on NSPI's mercury emissions was set in 2005 at 168 kg. There are declining emissions caps until 2020, when the cap will be 80% less than their original cap set in 2005 (35 kg).

Mandate: *Environment Act*

Outcome Description:

Clean Drinking Water - NSE is committed to public health protection. A desired outcome in meeting this commitment is clean and safe drinking water.

Measure:

Percentage of population served by municipal water supplies that meet the health-based criteria for microbiological quality.

Target:

The annual target is to maximize the percentage of the population meeting the health-based criteria for microbiological quality, as stated in the "Guidelines for Canadian Drinking Water Quality," at all times during the calendar year.

Why this Measure and Target(s)?

Approximately *65% of Nova Scotians obtain their drinking water from municipal drinking water supplies. Health Canada, together with provincial health and environment ministries, has established the "Guidelines for Canadian Drinking Water Quality." This document specifies the health-based criteria for a number of parameters, including maximum acceptable concentrations for total coliforms and *E. coli* bacteria. NSE tracks the proportion of people serviced by municipal drinking water supplies who have access to drinking water that meets the health-based criteria for microbiological quality. The target demonstrates NSE's commitment to clean and safe drinking water for Nova Scotians.

*Population adjustments were recently made to the 2012-2013 populations served that include rural population decreases and urban (HRM) population increases (from Nova Scotia Finance Economic Indicators – 2012, Environmental Information Management Access System (EIMAS) activity details, and the Halifax Water Annual Report – 2012). This has had the effect of increasing the population served by municipal supplies from 60% to 65%.

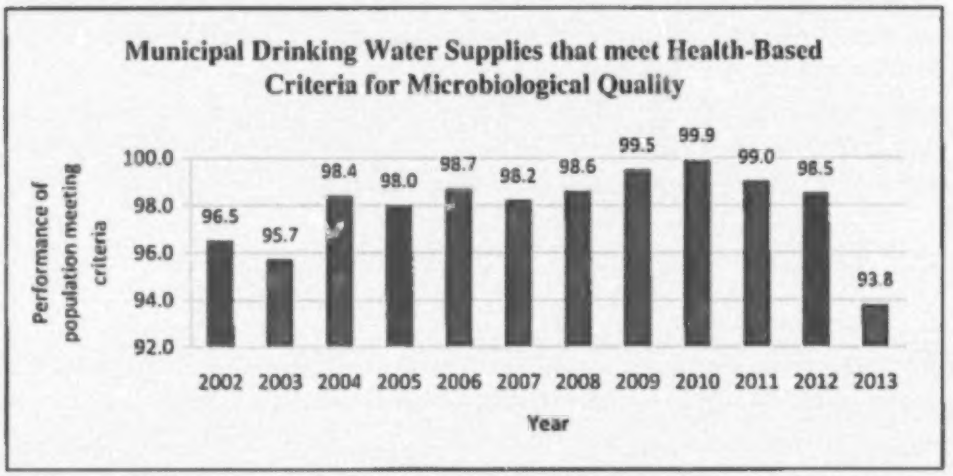
Strategic Actions to Achieve the Target:

- Continued to implement Water for Life: Nova Scotia's Water Resource Management Strategy.
- Initiated a renewal of the Drinking Water Strategy, including identifying areas for improvement.

- Supported the development of municipal source water protection plans.
- Ongoing administration of the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations and enforcement where necessary.

2013-2014 Results:

NSE's boil water advisory database provides a tracking system for municipal drinking water quality. In 2013, 93.8% of the population served by municipal drinking water supplies received water meeting the health-based criteria for microbiological quality at all times during the calendar year. This decrease from 2012 is because one boil water advisory affected a large population (31,250 people). A boil advisory for one supply serving a large population brings the overall percentage down. The following graph shows the results since 2002.



Ultimate Goal:

Our ongoing goal is to maximize the percentage of the population served by municipal drinking water supplies that meet the health-based criteria for microbiological quality.

Mandate: *Wilderness Areas Protection Act* and *Special Places Protection Act*

Outcome Description:

Protected Natural Areas - To increase the hectares of protected land in Nova Scotia to at least 12%.

Measure:

Total hectares of land protected through NSE *Wilderness Areas Protection Act*, *Special Places Protection Act* - ecological sites.

Target:

The annual target is to increase the hectares of land under various protection options.

Note: In June 2007, *EGSPA* had set a target to protect 12% of Nova Scotia's total land mass by 2015. During the 2012 *EGSPA* review, the goal changed from "protect 12%" to "protect at least 12%."

Why this Measure and Target(s)?

This measure and target tells us how much land is legally protected as wilderness areas under the *Wilderness Areas Protection Act* and as ecological sites (nature reserves) under the *Special Places Protection Act*.

Measuring the hectares of provincial land protected through departmental programs helps track the progress made in meeting provincial and national commitments to establish systems of protected areas. This measure also provides an indication of the state of biodiversity conservation in the province as protected areas provide habitat for a wide range of species.

As well, protecting at least 12% of provincial lands contributes to economic growth by providing a range of natural services, supporting outdoor recreation and tourism industries, and helping to brand Nova Scotia as a clean, green place in which to live, work, and do business.

Strategic Actions to Achieve the Target:

In 2013-2014, we continued to make progress on the goal of protecting at least 12% of the total land mass of the province.

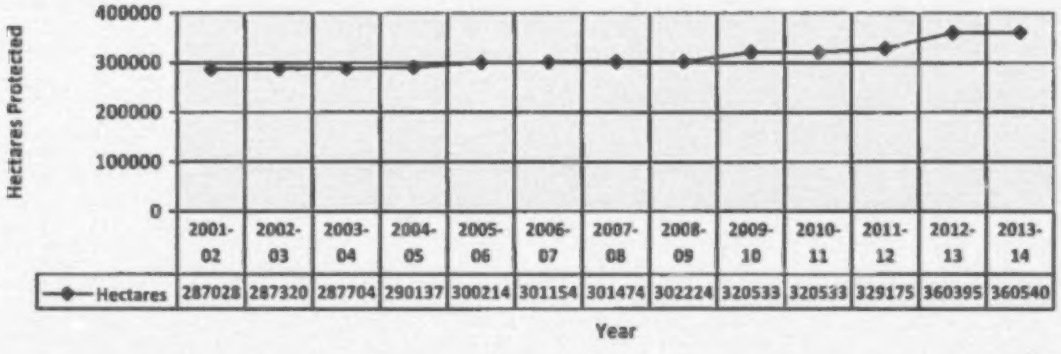
- Administered $3 million towards the acquisition of conservation lands.

- Continued partnerships with Nature Conservancy of Canada and Nova Scotia Nature Trust in support of private land conservation.
- On August 1, 2013, the Province released "Our Parks and Protected Areas: A Plan for Nova Scotia." A culmination of seven years of research and consultation, this Plan includes 206,020 hectares that is identified for protection by 2015, and an additional 10,610 hectares intended for protection by 2020. The plan also includes an additional 36,800 hectares of land for potential protection pending the outcome of certain considerations. High priority goals and actions for Nova Scotia's parks and protected areas are also established in the Plan. Once legal designations are complete for the lands in this Plan, more than 13% of Nova Scotia will be protected.

2013-2014 Results:

As of March 31, 2014, NSE protected a total of 360,540 hectares throughout the province. There were no new wilderness areas or nature reserves designated in 2013-2014. The 145 hectare variance in reporting for 2012-2013 and 2013-2014 is attributed to technical refinement in area measurement.

Hectares of Land Protected as Wilderness Areas or Nature Reserves



Ultimate Goal:

EGSPA sets a goal to legally protect at least 12% of the total land mass of the province by 2015. In addition to wilderness areas and nature reserves, lands protected under the *National Parks Act*, *Conservation Easements Act*, and *Canada Wildlife Act*, as well as conservation-oriented lands protected under the *Provincial Parks Act*, and conservation lands held by non-government charitable land trusts also contribute to the *EGSPA* 2015 goal.

While this measure only applies to NSE, all these other lands contribute to reaching the goal. Including other qualifying lands, approximately 514,980 hectares or 9.32% of Nova Scotia was legally protected as of March 31, 2014.

Mandate: *Environment Act* and *Environmental Goals and Sustainable Prosperity Act (EGSPA)*

Outcome Description:

Responsible Waste Management - Maximize diversion of compostable and recyclable materials so that they are no longer landfilled and are, instead, utilized as a valuable resource.

Measure:

Annual solid waste disposal rate per capita*(Kg/person). Our goal is 300 kg/person by 2015, and it is tracked by using the reports from the seven Nova Scotia municipal solid waste regions.

* Provincial per capita average determined from achievement reported by the seven Nova Scotia municipal solid waste regions.

Target:

The target is to achieve a disposal rate of no greater than 300 kg/person by 2015.

Why this Measure and Target(s)?

A goal of 300 kg/person was adopted as a challenging but realistic goal that will allow Nova Scotia to maintain and strengthen its claim to having the lowest disposal rate in Canada. This demonstrates our desire to divert resources from disposal sites in order to protect the environment and create new jobs and businesses. We are currently 50% below the national average.

Strategic Actions to Achieve the Target:

NSE's goal has been to focus on the implementation of "Our Path Forward" (renewed approach to solid waste management) as our key metric for measuring progress towards the goal of 300 kg/person.

- The existing Solid Waste Resource Management Regulations are being reviewed and a series of potential changes have been identified. These changes include establishing a framework for Extended Producer Responsibility (EPR) that will transfer the waste management costs for targeted materials away from the municipalities to the generators of the waste (manufacturers/brand owners and users). This will provide a strong new incentive for municipalities to divert materials. The proposed changes also include additional disposal bans.

- An initial round of targeted consultation with selected stakeholders was conducted in the Fall of 2013. Though stakeholders, for the most part, were supportive of the overall aim of the proposed changes, the need for more broadly based consultation was identified. This consultation took place in May and June 2014, with the goal of being able to develop draft regulatory language in the Fall of 2014.
- NSE continued to work with its partners to increase diversion by the adoption of best management programs such as promotion of clear bags for waste disposal.
- NSE conducted audits of construction and demolition (C&D) disposal facilities to assess compliance with operating approvals.
- NSE also worked with the Resource Recovery Fund Board (RRFB) to complete waste audits on the municipal solid waste stream to inform future policy and program development.

2013-2014 Results:

Overall disposal rate for the province continues to trend downwards, due in part to enforcement and educational activities undertaken by the RRFB and our municipal partners.

The latest data indicates that Region 7 (Argyle, Clare, Digby and Yarmouth) continues to surpass the provincial disposal target, with a regional disposal rate of 288 kg/person. Region 6 (South shore) and Region 5 (Annapolis Valley) follow closely at 315 and 321 kg/person, respectively. The recent expansion of green cart programs in Cumberland and Colchester counties, coupled with the provision of curbside collection in Cumberland County, has resulted in an overall decline in Region 3 of nearly 14%, year over year.

Additionally, increased adoption of clear bag programs (42 of 54 municipalities) and continued research to identify new and more efficient diversion methods will continue to reduce disposal rates. These ongoing efforts combined with the potential upcoming regulatory changes will position Nova Scotia well to achieve NSE's overall goal of protecting the environment.

Year	Per Capita Disposal
2005-2006	488 kg
2006-2007	477 kg
2007-2008	429 kg
2008-2009	417 kg
2009-2010	401 kg
2010-2011	401 kg
2011-2012	394 kg
2012-2013	376 kg

The 2013-2014 results are expected in the Winter of 2015.

Ultimate Goal:

To meet the province's legislated target, an additional 25% reduction in disposal rate is necessary. NSE intends to achieve its solid waste disposal rate target through implementing actions in "Our Path Forward," which is the renewed approach to solid waste management.

Mandate: *Environmental Goals and Sustainable Prosperity Act (EGSPA)*

Outcome Description:

Greenhouse Gas Emissions Decrease - Economy-wide Greenhouse Gas (GHG) emissions must be at least 10% below 1990 levels by 2020 as legislated in *EGSPA*.

Measure:

Annual provincial GHG emissions are measured by two reports combined: the National GHG Inventory Report (NIR) and the official report of electricity GHG required from NSPI, which is independently verified. The total GHG emissions in Nova Scotia each year are compared with our GHG emissions in 1990.

Target:

The target for 2020, which is a GHG output of 10% below 1990 levels, equals a total annual GHG emission in 2020 of no more than 17.1 million tonnes.

Why this Measure and Target(s)?

Continued warming due to the release of GHG into the atmosphere has substantial negative impacts on the environment, food supply, human health, and thus the economy. In doing our part to reduce our GHG by a generally accepted level, Nova Scotia has adopted the regional GHG target set by New England Governors/Eastern Canadian Premiers 2001 "Climate Change Action Plan," by 2020. This regional plan is to reduce annual GHG to a level 10% below our GHG level in 1990.

Strategic Actions to Achieve the Target:

The main strategic action to achieve the *EGSPA* target is our "Climate Change Action Plan" of January 2009. The first action in this Plan was the creation of the Greenhouse Gas Emissions Regulations (August, 2009). This groundbreaking regulation sets progressively lower caps on GHG produced by our electricity sector, which is the largest single source of GHG emissions in the province. This regulation requires over half of the annual GHG reductions needed to meet the *EGSPA* target for 2020. Specifically, in 2013-2014:

- NSE updated the requirements for monitoring and reporting of GHG by NSPI. This update strengthens compliance through greater transparency and precision in the reporting and independent verification requirements of the GHG Regulation.
- We continued to implement or complete the actions in Nova Scotia's 2009 "Climate Change Action Plan." For example, action 19, which committed the province to create a Sustainable Transportation Strategy, was completed in 2013-2014 in collaboration

with the Department of Energy. Transportation is the province's second largest source of GHG emissions. By March 31, 2014, 95% of the "Climate Change Action Plan" actions were completed or implemented.

- Steps were taken to advance our Agreement with the federal government on their proposed GHG Regulations. This included our formal efforts to align our goals and early actions on GHG with the proposed federal action on coal-fired electricity.
- Also, work with the federal government in 2013-2014 focused on completion of an Equivalency Agreement with the proposed federal regulation on coal-fired electricity. Our existing provincial regulation can achieve the same or better GHG reduction as the federal regulation, but at a lower cost to Nova Scotians.
- To complete this Agreement, in 2013-2014, we revised our existing Nova Scotia GHG (Electricity) Regulation as needed, a next step in the process.

2013-2014 Results:

The latest GHG report for the province provides GHG levels for the year 2012 (released in April, 2014). The total GHG for Nova Scotia in 2012 was 18.9 M tonnes. The GHG trend in Nova Scotia has been significant reductions since the peak year of 2005 (23.1 M tonnes), and slow but steady reductions since *EGSPA* was enacted in 2007. Reductions were due to several policy actions, including our GHG Regulations, our renewable electricity standard, and energy efficiency initiatives.

Note: The drop in GHG in 2012 is partly due to our GHG policies, but in that year there were also closures at two paper mills, reducing industrial demand for electricity and thus reducing GHG emissions. A modest increase in GHG is therefore expected in the 2013 results, as one of the mills came back on stream. Our GHG Regulation and other policies are expected to continue to reduce overall GHG emissions.

Ultimate Goal:

The ultimate goal of GHG reduction includes the direct goal of doing our share in mitigating the cause of climate change and its serious impacts. The indirect goal is a transformation of our energy supply and demand to a more stable and sustainable basis, as imported fossil fuels become increasingly volatile in price and availability. Although this transformation will take years, it triggers innovation and investment within the province to a more sustainable economy. Our long-term target for GHG reduction is 80% below current levels by 2050. Nova Scotia began this transformation as an economy with high carbon intensity (fourth highest in Canada per capita), but due to our early actions we are now positioned to make the energy and economic transformation that is possible. These early actions have helped prove Nova Scotia can have economic expansion alongside GHG reduction.

Mandate: *Environmental Goals and Sustainable Prosperity Act (EGSPA)*

Outcome Description:

Clean Air - Meet the Canada-Wide Standard (CWS) for particulate matter.

Measure:

Ambient fine particulate matter concentrations in $\mu g/m^3$ (micrograms per cubic meter) and is a measurement of concentrations of $PM_{2.5}$ in ambient air (airborne particles that are 2.5 microns or less in diameter); the three-year average of the annual 98^{th} percentile (*98th* percentile of a set of data is the point where *98%* of the data is below it) of the daily 24-hour average concentrations.

Target:

Our target for this measure is 30 $\mu g/m^3$ or less of $PM_{2.5}$.

Why this Measure and Target(s)?

Fine particulate matter is a pollutant that contributes to degraded air quality, which has negative effects on human health and the environment. The purpose of this measure and target is to reduce smog.

Strategic Actions to Achieve the Target:

- NSE maintains monitoring stations and carries out data analysis to determine CWS achievement in Census Metropolitan Areas (CMA) - areas with a core urban population of 100,000 or more.

2013-2014 Results:

The $PM_{2.5}$ three-year average (for the 2011 to 2013 period) was 14 $\mu g/m^3$ in the Halifax Regional Municipality (HRM), which is below the CWS target of 30 $\mu g/m^3$. The $PM_{2.5}$ three-year average in the Cape Breton Regional Municipality (CBRM) for 2011-2013 will be available in the Fall of 2014.

Ultimate Goal:

Our ultimate goal is clean air. Our goal for this measure is to continue to meet the Canada-wide Standard for HRM and CBRM, resulting in cleaner air.

Mandate: *Environmental Goals and Sustainable Prosperity Act (EGSPA)*

Outcome Description:

Clean Air - Meet the Canada-Wide Standard for ozone.

Measure:

Ambient ground-level ozone concentrations, in parts per billion (ppb); the three-year average of the annual fourth-highest daily maximum eight-hour average concentrations.

Target:

Our target for this measure is 65 ppb ground level ozone or less.

Why this Measure and Target(s)?

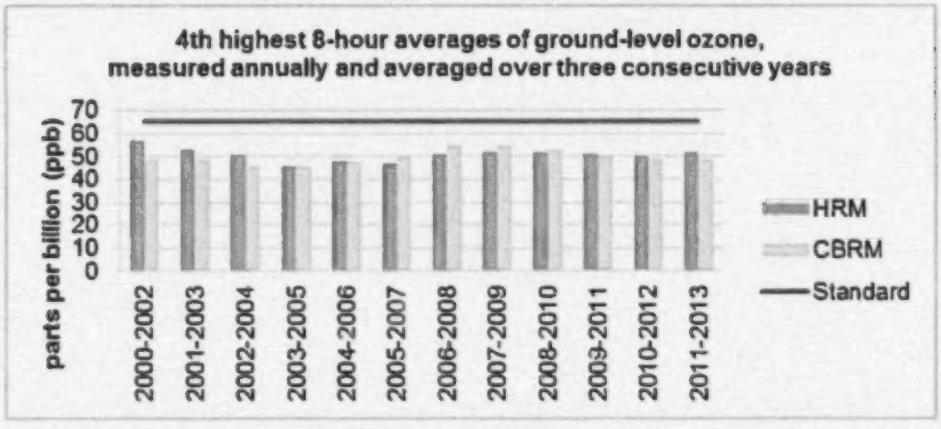
Ozone is a pollutant that contributes to the formation of smog, which has negative effects on human health and the environment. The purpose of this measure and target is to reduce smog.

Strategic Actions to Achieve the Target:

- NSE maintains monitoring stations and carries out data analysis to determine CWS achievement in Census Metropolitan Areas (CMA) - areas with a core urban population of 100,000 or more.

2013-2014 Results:

The ozone three-year average (for the 2011 to 2013 period) was 52 ppb in the Halifax Regional Municipality (HRM). The ozone three-year average in the Cape Breton Regional Municipality (CBRM) for 2011-2013 was 49 ppb. Both are below the CWS target of 65 ppb.



Ultimate Goal:

Our ultimate goal is clean air. Our goal for this measure is to continue to meet the Canada-wide Standard for ozone, resulting in cleaner air.

Mandate: *Environmental Goals and Sustainable Prosperity Act (EGSPA)*

Outcome Description:

Wastewater Treatment Facilities - All municipal wastewater treatment facilities provide at least primary treatment by 2020 - i.e. - prevention of adverse effects of wastewater discharges on public health and the environment.

Measure:

Percentage of wastewater treatment facilities that provide at least primary treatment.

Target:

All municipal wastewater treatment facilities provide at least primary treatment by *2020.

Why this Measure and Target(s)?

In Nova Scotia, the discharge of untreated wastewater results in beaches closed to swimming, waters closed to shellfish harvesting, and the odor and aesthetics associated with raw discharges affecting our ecotourism potential. Our streams, estuaries and coastal waters can be threatened by the substances found in inadequately treated wastewater and drinking water can become contaminated.

By ensuring that all facilities have at least primary treatment, we ensure a level of protection against the adverse effects of wastewater discharges.

Strategic Actions to Achieve the Target:

- Worked with municipalities to implement the Canada-wide Municipal Wastewater Effluent (MWWE) Strategy.
- Completed new provincial wastewater standard. NSE is engaging municipal stakeholders in the review of the provincial wastewater standard.
- Worked with the federal government to discuss roles and responsibilities related to federal Wastewater Regulations.

2013-2014 Results:

Approximately 55% of Nova Scotians dispose of their wastewater into a central sewer collection system; the remaining 45% utilize individual on-site septic systems. There are currently 141 municipal central sewer collection systems in the province.

In 2012-2013, a previously unserviced community commissioned a new wastewater treatment plant. Currently, 131 facilities (93%) have at least a primary level of treatment.

Year	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Percentage	90	91	91	92	92	93

Ultimate Goal:

The ultimate goal is to have 100% of wastewater treatment facilities provide at least primary treatment by 2020. There are 10 facilities remaining in Nova Scotia with raw wastewater discharge. One of these facilities is currently in the process of designing and constructing a new treatment facility and another is beginning the pre-design process.

NSE is contributing to this goal by developing an implementation plan for the MWWE Strategy. NSE will continue to consult with municipalities on the development of this plan.

***Change in Measure**

On February 17, 2009, Nova Scotia endorsed a Canada-wide Strategy for Municipal Wastewater Effluent (MWWE). This strategy calls for a minimum of secondary treatment. Although this standard is more stringent than primary treatment, the timelines are longer than the 2017 date previously stated in *EGSPA*.

Also, in June 2012, the federal government published new Wastewater Regulations that require treatment of high risk discharges by the year 2020.

The timeline was modified to achieve the goal by the year 2020, instead of 2017 to align this priority with new federal Wastewater Regulations.

Appendix A

Annual Report under Section 18 of the *Public Interest Disclosure of Wrongdoing Act*

The *Public Interest Disclosure of Wrongdoing Act* was proclaimed into law on December 20, 2011.

The *Act* provides for government employees to be able to come forward if they reasonably believe that a wrongdoing has been committed or is about to be committed and they are acting in good faith.

The *Act* also protects employees who do disclose from reprisals, by enabling them to lay a complaint of reprisal with the Labor Board.

A Wrongdoing for the purposes of the *Act* is:

a) a contravention of provincial or federal laws or regulations

b) a misuse or gross mismanagement of public funds or assets

c) an act or omission that creates an imminent risk of a substantial and specific danger to the life, health or safety of persons or the environment, or

d) directing or counselling someone to commit a wrongdoing

Nova Scotia Environment did not receive any disclosures of wrongdoing:

Information Required under Section18 of the *Act*	Fiscal Year 2013-2014
The number of disclosures received	Nil
The number of findings of wrongdoing	Nil
Details of each wrongdoing (insert separate row for each wrongdoing)	
Recommendations and actions taken on each wrongdoing (insert separate row for each wrongdoing)	